

AMENDMENTS TO THE CLAIMS

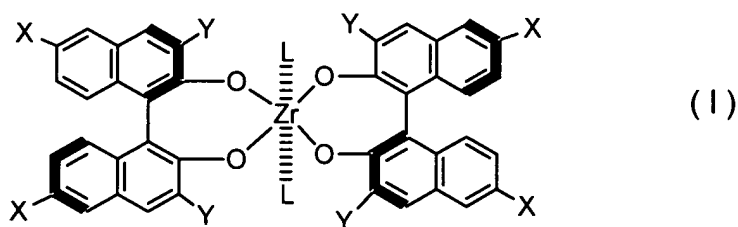
1 to 14. **(Cancelled)**

15. **(Withdrawn)** A practical chiral zirconium catalyst that is stable in air and storable for a long period of time, which comprises

a chiral zirconium catalyst comprising, as its component, zirconium and an optically active binaphthol compound, and zeolite, wherein the chiral zirconium catalyst is fixed onto the zeolite.

16. **(Withdrawn)** The practical chiral zirconium catalyst of claim 15, wherein the chiral zirconium catalyst comprises, as its component, a coordination compound.

17. **(Currently Amended)** The practical chiral zirconium catalyst of claim 16, wherein the chiral zirconium catalyst is represented by the following formula (I):



wherein, X and Y are the same as or different from each other and represent a hydrogen atom, a halogen atom or a fluorinated hydrocarbon group, at least one of them being a halogen atom or a fluorinated hydrocarbon group; and L represents ~~a ligand~~ N-methylimidazole or 1,2-dimethylimidazole.

18. **(Previously Presented)** The practical chiral zirconium catalyst of claim 17, wherein the fluorinated hydrocarbon group is a perfluoroalkyl group.

19. **(Previously Presented)** The practical chiral zirconium catalyst of claim 17, wherein the fluorinated hydrocarbon group is a perfluoroalkyl group of 1 to 6 carbon atoms.

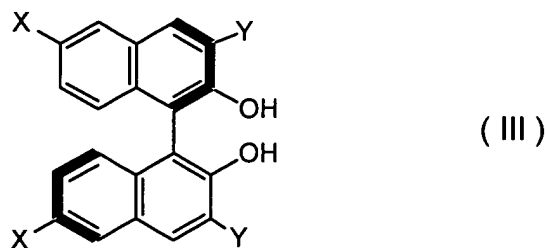
20. **(Withdrawn)** The practical chiral zirconium catalyst of claim 15, wherein the zeolite is selected from the group consisting of Molecular Sieve 3A, Molecular Sieve 4A and Molecular Sieve 5A.

21. **(Withdrawn)** The practical chiral zirconium catalyst as claimed in claim 15, wherein the chiral zirconium catalyst is fixed on zeolite by electrostatic interaction.

22. **(Withdrawn)** A practical chiral zirconium catalyst obtained by the steps of:
drying Molecular Sieve by heating under reduced pressure in an inert atmosphere;
mixing the Molecular Sieve with a zirconium alkoxide represented by the following formula (II):



wherein R represents a hydrocarbon group that may contain a substituent; and an (R)-BINOL represented by the following formula (III):



wherein X and Y may be the same as or different from each other, and represents a hydrogen atom, a halogen atom or a fluorinated hydrocarbon group, at least one of them being a halogen atom or a fluorinated hydrocarbon group.

23. **(Withdrawn)** The practical chiral zirconium catalyst of claim 22 obtained by further mixing a coordination compound with the zirconium alkoxide and the (R)-BINOL.

24. **(Withdrawn)** The practical chiral zirconium catalyst of claim 23, wherein the coordination compound is N-methylimidazole.

25. **(Withdrawn)** A method for an asymmetric Mannich reaction, comprising:

reacting an imine and a silicon enolate in the presence of the practical chiral zirconium catalyst of claim 15.

26. **(Withdrawn)** A method for Aza Diels-Alder reaction, comprising the use of the practical chiral zirconium catalyst of claim 15.

27. **(Withdrawn)** A method for Strecker reaction, comprising the use of the practical chiral zirconium catalyst of claim 15.

28. **(Withdrawn)** A method for an asymmetric Mannich reaction, comprising:
reacting an imine and a silicon enolate in the presence of the practical chiral zirconium catalyst of claim 22.

29. **(Withdrawn)** A method for Aza Diels-Alder reaction, comprising the use of the practical chiral zirconium catalyst of claim 22.

30. **(Withdrawn)** A method for Strecker reaction, comprising the use of the practical chiral zirconium catalyst of claim 22.